

# Vaccine Update

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## Diphtheria, Tetanus, and Pertussis

### Vaccination Schedule

(minimum age for dose #1 is 6 weeks)

- Primary 1 2 months
- Primary 2 4 months
- Primary 3 6 months
- Primary 4 15-18 months
- Booster #1 Age 4-6; before entering school
- Booster #2 Age 11-12; if 5 years since last dose of DtaP, ped DT, DTP, or Td.
- Do not restart series !

## Rules for Diphtheria, Tetanus, & Pertussis Vaccines

- There must be a minimum of 4 doses of a DTP-product; the last one must be on or after the 4<sup>th</sup> birthday and the last two doses must be separated by at least 6 months.
- You must not knowingly give more than 6 doses of DTP-type product in the primary series.
- DTP/DtaP/Pediatric DT are only given to children under the age of 7. Pediatric DT requires the written order of the child's physician.
- At age  $\geq 7$  children are to receive adult Td or Tdap.

## Diphtheria, Tetanus, & Pertussis Continued:

Routine Schedule for children 7 or older

- Dose #1 – Tdap
- Dose #2 – 4 weeks later, give Td
- Dose #3 – 6 months later, give Td

*Tdap can substitute for only one of any of the 3 Td doses in the*

*series.*  
*(if age appropriate)*

## Tdap (for adolescents)

Two new products:

*Adacel* –is licensed for persons ages 11-64.

*Boostrix* – is licensed for persons ages 10-18.

Both are approved for one dose, not multiple doses in a series.

Routine Tdap 11 to 18 years:

-Universal Tdap at age 11-12

-Catch-Up Tdap at 13-18 years for missed doses of Td/Tdap at 10-12.

## Tdap cont.

- PLUS “First Opportunity”
- Tdap at 11-18 years if interval from last Td => 5 years. If Tdap is given, they do not need another *tetanus* product for 10 years.(unless injured).
- An interval of 5 years or more since the most recent tetanus toxoid-containing vaccine is suggested due to increased local side effects. Tdap can be given as soon as 2 years after a Td but only if they live with an infant less than 2 months old.

## Wound Management

- Adolescents ages 11-18 years who require a tetanus toxoid-containing vaccine as part of wound management should receive a single dose of Tdap instead of Td, if they have not previously received Tdap. If Tdap is not available, or was previously administered, these adolescents should receive adult Td.
- Give booster for “dirty” wounds if > 5 years since last dose of tetanus-containing vaccine.

## Other DTP issues:

- Screen carefully for past hx of temp of 105 degrees or > within 48 hours of previous vaccination .
- Collapse or shock-like state within 48 hours post vaccination.

- Persistent, inconsolable crying lasting 3 hours or more within 48 hours after vaccination.
- Convulsions with or without fever occurring within 3 days post vaccination.
- *Encephalopathy* within 7 days after previous dose.

## DTP issues cont.

- Serious reaction to vaccine or vaccine component.
- DTP vaccination may need to be delayed if the child has been having uncontrolled or unevaluated neurological disorders such as seizures, infantile spasms or progressive neuropathy.
- Stable or resolved neurological conditions do not necessitate a vaccination delay. Ex: controlled epilepsy, cerebral palsy or developmental delay.

## Poliomyelitis

### Vaccination Schedule

(minimum age for dose #1 is 6 weeks)

Primary #1 2 months

Primary #2 4 months

Primary #3 6-18 months

Booster 4-6 years old

*Exclusive use of IPV recommended in 2000.*

## Polio Rules

- If a child receives both types of vaccines (oral and/or injectable polio), four doses of any combination of IPV or OPV by 4-6 years of age is considered a complete series.
- Schedules begun with OPV should be finished with IPV.
- Children who receive three doses of IPV before the 4<sup>th</sup> birthday should receive a fourth dose before or at school entry ( age 4-6). *The fourth dose is not needed if the third dose is given on or after the fourth birthday.*

## Haemophilus Influenzae type b (Hib)

- Vaccine Schedule
- Primary 1 2 months
- Primary 2 4 months

- Primary 3 6 months
- Booster dose- 12-15 months
- Children must be => 6 weeks old to receive first dose. Children starting late may not need entire 3 or 4 doses. Number of doses depends on current age. All children 15-59 months of age who have not completed a series need one dose of Hib. Hib vaccine is generally not recommended >59 mo.

## Varicella ( Chicken Pox)

“Live Vaccine”

- Dose #1 12-18 months
- Persons > 13 years of age without a hx of disease require 2 doses, separated by 4-8 weeks.
- Beginning August 1, 2001, all children at least 19 months of age and less than 7 years of age, shall have one dose of varicella vaccine, unless a parent, guardian, or physician states that the child has had chickenpox disease.*

## Rules for “Live Vaccines”

- **NO** 4 day grace period should be honored for live vaccines; if live vaccines are not given on the same day, they must be separated by 4 full weeks minimum.
- A PPD skin test may be applied the same day a “live” vaccine is given, but if the live vaccine is given first you must wait =>4 weeks to give the PPD.

## Hepatitis B

- Vaccine Schedule
  - Primary #1 at birth
  - Primary #2 1-2 months of age
  - Primary #3 6-18 months of age
- Hepatitis B #3 is invalid if given before 6 months of age.*
- Routine Adolescent/Adult Schedule
- Primary #1 now
  - Primary #2 1 month after #1 was given
  - Primary #3 3-5 months after dose #2

## Hepatitis B Accelerated Schedule for Adolescents

- If an accelerated schedule is needed, the minimum interval between the first two doses shall be 4 weeks, and the minimum interval between the 2<sup>nd</sup> and the 3<sup>rd</sup> dose shall be 8 weeks. BUT, the first and third dose **must** be separated by at least 4 months.

## Meningitis

- Meningococcal conjugate vaccine : MCV4 (Menactra)- Ages 11-55.  
Given IM. *\*This is the vaccine that should be given at age 11, as it covers high school and college years. It is free to VFC eligible children and \$85 for those who do not qualify for VFC or whose insurance will not pay for it.*
- Meningococcal Polysaccharide vaccine: MPSV4 (Menomune)-Ages 2-18.  
Given SQ. This 'old' vaccine does not last past 3 years.

## Measles-Mumps-Rubella

“LIVE” vaccine

Dose #1 12-15 months

Dose #2 4-6 years old; but can be given anytime > 4 weeks after first dose and be valid.

*\*Must have two doses separated by at least 4 weeks.*

*\*MMR given before 12 months old should not be counted as valid.*

*\*Children must have one MMR & 2<sup>nd</sup> measles containing vaccine.*

## Influenza

➤ LAIV- “live” vaccine. Given intranasally.

In Children < age 9 receiving flu mist for the first time need two doses separated by 6-10 weeks. For Healthy individuals ages 5-49.

➤ Inactivated Influenza vaccine. Given IM. For children < age 9 receiving flu shot for the first time need 2 doses, given at least one month apart.

## Exceptions to Immunizations

- Religious- the child's parents are opposed to medical immunization against disease, and who object by a written sworn statement to the immunization of such child on religious grounds.

*The parent/guardian's statement of religious exemption does not have to be*

*notarized. The statement **DOES** have to say “I swear” or “I affirm”. Either of these is acceptable in a court of law. We keep the original statement and attach a copy to the Certificate of Religious Exemption and give to school.*  
*It should list the vaccines they are objecting to.*

## Medical Exemption

- Medical- A written opinion from the child’s attending physician that immunization would be injurious to the child’s health. A medical exemption can be signed by a physician, ARNP, PA or their designee. The child must then present a Medical Exemption Certificate to the school.

## Provisional Certificate

- Given when the child has not reached the required minimum age;
- For those whom the time interval between doses has not elapsed;
- Provisional Certificates shall expire 14 days from the date *the next dose is required to be given*;
- Provisional Certificates are **not** valid for more than one (1) year.

## Combination Vaccines

- Record the vaccine by name of disease.  
Example: “Tetramune” was given to protect against Dtap & Hib.
- Other combination vaccines:
- Pediarix- Dtap, Hep B, IPV
- Comvax- Hep B & Hib
- Twinrix- Hep B & Hep A
- Varivax- Varicella
- Tripedia-diphtheria, tetanus, and acellular pertussis,

## VAERS

- VAERS is the national program that monitors the safety of vaccines after they are licensed and is jointly administered by the CDC and the FDA.
- The National Childhood Vaccine Injury Act of 1986 mandates that health care providers report specific adverse events that occur post vaccination,

- <http://www.vaers.org> or call 1-800-822-7967.